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GORDON E NELSON			COLBERT, ELLA	
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DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/294,656	Applicant(s) CUSSON ET AL.	
	Examiner Ella Colbert	Art Unit 3624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 112-131 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 112-131 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 112-131 are pending. Claims 112, 115, 119, and 124 have been amended in this communication filed 11/16/05 entered as Response After Non-Final Action.
2. The 35 USC 112 second paragraph rejection of 08/03/05 of claim 112 has been overcome by Applicants' amendment to claim 112 and is hereby withdrawn. The 35 USC 112 second paragraph rejection still remains for claims 119 and 124 and a new 35 USC 112 second rejection for claim 112 is set forth here below.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 112, 119 and 124 are rejected under 35 U.S.C. 112, second paragraph.

Claim 112, lines 4 and 5, recites "... a second database system of the plurality of database systems, the request otherwise being executed in the first database system". It is unclear from the claim language what Applicants' mean by "the request otherwise being executed in the first database system". It is vague and unclear what Applicants' are trying to claim as recited "... of the plurality of database systems, the request otherwise being executed in the first database system". Do Applicants' mean, the request for the specifier cannot be interpreted in the first database system causing the request for the specifier to be executed in part in the second database system and if the request cannot be executed in the second database system being executed in the first database system?

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Claim 112 recites the limitation "second database" in line 8.

Claims 119 and 124 have a similar problem. There is insufficient antecedent basis for this limitation in claims 112, 119, and 124. Applicants' are respectfully request to review all of the independent claims for correction of insufficient antecedent basis.

Claims 125, 128, and 131 recite the claim limitation "first database system". There is insufficient antecedent basis for this limitation in claims 125, 128, and 131.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a) because they fail to show in figure 2, "server 203"; "Web Server 107"; "Query 231"; and "Query Log 205"; Figure 3, "Web Application 111"; Servers 203"; "Query translator 339"; and "Table 305"; Figure 4, elements "401" and "235"; and Figure 5, element "501" as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each

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drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "106" has been used to designate both "HTML Page" and "HTML W/Results" in figure 1; reference character "111" has been used to designate both "WEB APP." and "Web APP. Program"; reference character "253" has been used to designate both "Data Access" and "Data Access Layer"; reference character "218" has been used to designate both "NDR" and "NDQ"; reference character "220" has been used to designate both "NDQ" and "NDR"; reference character "221" has been used to designate both "QE" and "Query Engine"; reference character "223" has been used to designate "Cached Data", "Cache Data", "Copy", and "Description Data"; reference character "219" has been used to designate both "Queryable Cache" and "Queryable Caches"; reference character "237" has been used to designate both "Source DB Server" and "Database"; and reference character "216" has been used to designate both "HIM" and "M" in figure 2; reference character "349" has been used to designate both "Data Access Layer" and "Data Access"; and reference character "305" has been used to designate both "CDB DESC" and "Table" in figure 3; reference character "241" has been used to designate both "Source Database" and "Database"; reference character "413" has been used to designate both "Redo Log Buffer" and "Redo Log";

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reference character "415" has been used to designate both "Source Server Memory" and "Memory"; and reference character "421" has been used to designate both "Source Server Disk" and "Disk Drive" in figure 4; reference character "503" has been used to designate both "Global Dataset ID" and "Hash Function"; and reference character "507" has been used to designate both "No. of Querys" and "Number of Queries Information."

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "507", "503", and "513" have been used to designate both "Hash Function", "Global Dataset ID", and "No. of Querys". The word "Querys" is misspelled. The correct spelling is "Queries". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either

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"Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The Specification is objected to because element "103" Client is referenced in the drawing and in the Specification "103" is referenced as "browser" in figure 1. On page 4 of the Specification in line 30, pages 30-5 through 30-11 should be corrected to read "pages 5-30". Pages 30-5 through 30-11 is backwards. If a person is looking for details pages 5-30 is sufficient and to say pages 30-11 is redundant and incorrect. In the description of figure 1, "Client 103" is not mentioned; figure 2, the following are missing: page 7, line 12 items 203(i) and 203(n); line 20 should read "servers 203 (i) and 203(n)" because "server 203" is missing from the drawing; lines 24-29 should read referring to figure 1 for elements "107", "109", "111", "112", and "113"; line 34 references element "223" as copy and "223" in the drawing figure is referenced as "cache data"; page 8, lines 9 and 10 should read "..., queryable cache 219 returns a miss signal (HIM) 216 as referenced in the drawing figure 2; line 26 reads "... is data interface 212. Data access interface 212"; this line should read "... is data access 212. Data access 212" as referenced in the drawing; page 9, line 8 reads "present, data access interface 212 makes cache query 245 ..."; this line should read "present, data interface 212 makes cache query (CQ) 245 ..."; lines 9 and 10 reads "... cache data base 236. Cache database 236 returns cache result 247, which data access interface 212 puts into the

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form required for result 217”; these lines should read “... cache database 236. Cache database 236 returns cache result (CR) 247, which data interface 212 puts into the form required for result (R) 217”; line 22 reads “transmitter 243 ...”; this line should read “transmitter (XMIT) 243”; line 26 should read “servers 203 (i) and 203 (n)”; line 27 should read “determines from the data set description maintained by DA Interface 212” as referenced in the drawing; lines 28-30 should read “... ; if it is, it puts the cache update query into the proper form (CUDA) 251 for cache database 236 ..., which runs update query (CUDQ) 251 on cache database 236”; line 34 should read “... contained in query information (Q1) 208” in order to be in agreement with the drawing figure; and figure 2 has the following elements not described in the Specification: elements “224 (i)” and “224(n)”, “238”, “239”, “CUDQ 251” is also “CUDQ 234”; figure 3, elements “365”, “353”, “351 (to,from)”, “318”, and “320 LR”; Figure 4, “401(i)” and “401(m)”, “407” and “419”; and Figure 5, element “509” is not described in reference to figure 5 in the Specification.

Applicants’ are respectfully requested to review the Specification to make sure the drawing figure elements are in agreement with the drawings and the text labeling is the same as in the Specification that is referenced for that character element as listed above. **The Specification and the drawing figures are not in agreement.**

Correction is required. See MPEP § 608.01(b).

Specification

7. The abstract of the disclosure is objected to because the Abstract is not on a separate page.

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- (k) **Abstract of the Disclosure:** See MPEP § 608.01(f). **A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims.** In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 112-114, 119, 120, 124, 125, 128, and 131 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 5,924,096) Draper et al, hereafter Draper in view of Divyesh Jadav and Monish Gupta, hereafter Jadav and Monish.

As per claims 112 and 125, Draper teaches, Apparatus for responding to a request, the request including one or more specifiers referring to one or more objects in a distributed database system that includes a plurality of database systems and the apparatus comprising; a first database system of the plurality (col. 8, lines 1-10 and fig. 6 (602)(606-DB1)). Draper failed to teach a redirector which responds to the request when the request includes a specifier that cannot be interpreted in the first database system by causing the request to be executed at least in part in a second database

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system of the plurality the request otherwise being executed in the first database system. Jadav and Gupta teach, a redirector which responds to the request when the request includes a specifier that cannot be interpreted in the first database system by causing the request to be executed at least in part in a second database system of the plurality the request otherwise being executed in the first database system (Page 13, col. 2, 4.2 –Page 14, col. 2, line 18, fig. 1 and fig. 4- shows redirection). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a redirector which responds to the request when the request includes a specifier that cannot be interpreted in the first database system by causing the request to be executed at least in part in a second database system of the plurality, the request otherwise being executed in the first database system and to modify in Draper because such a modification would allow Draper to serve stored documents locally (rather than in the database), and the database server could be home to specified databases for example employee database, payroll database, etc.

As per claim 125, Draper teaches, a second database system in fig. 6 (604 & 606).

As per claim 113, Draper teaches, The apparatus in accordance with claim 112 wherein: the objects in the first database system include copies of objects contained in at least one other database system belonging to the distributed database system (col. 10, lines 15-41 (line 34 – Distributed database)).

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As per claim 114, Draper teaches, The apparatus in accordance with claim 1 13 wherein: the first database system functions as a cache with regard to the objects whose copies are included therein (col. 8, lines 11-54).

As per claims 115 and 121, Draper teaches, The apparatus in accordance with claim 113 wherein the other database system is the second database system (col. 9, lines 13-32 and fig. 6 (604 and 606)).

As per claims 116 and 121, Draper teaches, The apparatus in accordance with claim 1 1 5 wherein: the first database system functions as a cache with regard to the second database system (col. 9, lines 33-53 and fig. 6 (606 –system A & B)).

As per claims 117 and 126, Draper teaches, The apparatus in accordance with any one of claims 1 12 through 116 wherein: the apparatus is local to a server of the type that provides a program executing in the server with a standard interface for querying databases; and the requests include queries received via the standard interface (col. 4, line 4 –col. 5, line 11).

As per claims 118, 123, 127, and 130, Draper failed to teach, The apparatus in accordance with claim 117 wherein: the server obeys the hypertext transfer protocol (http) and the program is a Web application program. Jadav and Gupta teach, the server obeys the hypertext transfer protocol (http) and the program is a Web application program (page 12, paragraph 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the server obey the hypertext transfer protocol (http) and the program is a Web application program and to modify in Draper in view of Draper's teachings of an Internet, programming, and servers and

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because such a modification would allow Draper to have Web access to simulate the effectiveness of caching documents (objects) retrieved by the HTTP using WWW browsers.

As per claims 119 and 124, Draper teaches, A method of responding to a request the request including one or more specifiers that refer to one or more objects in a distributed database system that includes a plurality of database systems and the method comprising the steps of: receiving the request in a first database system of the plurality of database systems (col. 7, line 59-col. 8, line 10). Draper failed to teach, determining whether the request includes a specifier that cannot be interpreted in the first database system of the plurality of database systems; and when the request includes such a specifier, causing the request to be executed at least in part in a second database system of the plurality of database systems. Jadava and Gupta teach, determining whether the request includes a specifier that cannot be interpreted in the first database system of the plurality of database systems; and when the request includes such a specifier, causing the request to be executed at least in part in a second database system of the plurality of database systems (Page 14, col. 2, paragraph 3- page 15, col. 1, line 29- page 16, col. 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to determine whether the request includes a specifier that cannot be interpreted in the first database system of the plurality of database systems; and when the request includes such a specifier, causing the request to be executed at least in part in a second database system of the plurality of database systems and to modify in Draper because such a modification

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would allow Draper to serve stored documents locally (rather than in the database), and the database server could be home to specified databases for example employee database, payroll database, etc.

As per claim 121, this dependent claim is rejected for the similar rationale as given above for claims 115 and 116.

As per claim 122, this dependent claim is rejected for the similar rationale as given for claim 117.

As per claim 124. A memory device characterized in that the memory device contains code which, when executed in a processor (col. 4, lines 51-65) performs the steps of claim 124.

As per claim 128, this independent claim is rejected for the similar rationale as given above for claims 112 and 125

As per claim 129, this dependent claim is rejected for the similar rationale as given above for claims 117, 127, and 126.

As per claim 131, this independent claim is rejected for the similar rationale as given above for claims 124 and 128.

Response to Arguments

10. Applicant's arguments filed 11/16/05 have been fully considered but they are not persuasive.

Issue no. 1: Applicants' argue: Jadav and Gupta do not disclose a redirector which causes a request that includes a specifier that cannot be interpreted in the first database system to be executed in the second database system, the request

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being otherwise executed in the first database system, as required by the claim 112, and the combination of Draper and Jadav and Gupta does not show all of the limitations of the claim and the Examiner has not made the prima facie case of obviousness required for a rejection under 35 U.S.C. 103 has been considered but is not persuasive.

Response: In response to applicant's argument that the combination of Draper and Jadav and Gupta does not show all of the limitations of the claim and the Examiner has not made the prima facie case of obviousness required for a rejection under 35 U.S.C. 103, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). It is interpreted that Jadav and Gupta teach "a redirector which responds to the request ..." in col. 2, 4.2 –Page 14, col. 2, line 18, fig. 1 and fig. 4- **shows a redirector**).

Issue no. 2: Applicants' argue: Draper and Jadav and Gupta disclose neither individually nor in combination a server of the type that provides a program executing on the server with a standard interface for querying databases (claim 117) that includes a database system component has been considered but is not persuasive. Response: Draper does not expressly disclose by name a standard interface. However, a standard interface in any computer system is defined as the point in which a connection is made between two elements so that they can work with each other or software that enables a

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program to work with the user, with another program such as the operating system, or with the computer's hardware. Thus it is interpreted that Draper teaches a program executing in the server with a standard interface for querying databases" in col. 4, line 4-col. 5, line 11.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Domenikos et al (US 5,838,916) discloses cache and a cache redirector.

Inquiries

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 571-272-6741. The examiner can normally be reached on Tuesday-Thursday, 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on 571-272-6747. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



E. Colbert
Primary Examiner
February 1, 2006